

Application No. 10/016,839
Amendment dated July 30, 2003
Reply to Office Action dated July 7, 2003

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended): A method for producing lenses, comprising:
assembling a plurality of glass rods having a desired length in side-by-side configuration
into a single unit;
cutting the single unit into multiple slices, each slice having a plurality of individual
lenses comprising an array of glass rod pieces;
finishing the slices to a desired thickness and surface finish; and
extracting the individual lenses glass rod pieces from the slices to produce a plurality of
individual lenses.

Claim 2 (original): The method of claim 1, wherein assembling a plurality of glass rods comprises inserting the glass rods into a housing and filling the housing with a blocking medium.

Claim 3 (currently amended): The method of claim 2, wherein extracting the individual lenses glass rod pieces from the slices comprises removing the blocking medium from the slices.

Claim 4 (original): The method of claim 1, wherein assembling a plurality of glass rods comprises inserting the glass rods into a plurality of split rings spaced in a row and tightening the split rings around the glass rods.

Claims 5 (currently amended): The method of claim 4, wherein extracting the individual lenses glass rod pieces from the slices comprises loosening the split rings.

Claim 6 (original): The method of claim 1, wherein assembling a plurality of glass rods comprises arranging the glass rods in a row in between a mat.

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Claim 7 (currently amended): The method of claim 6, wherein extracting the individual lenses glass rod pieces from the slices comprises separating the mat from the lenses glass rod pieces.

Claim 8 (original): The method of claim 6, wherein the mat comprises plastic film.

Claim 9 (original): The method of claim 6, wherein the mat comprises glass.

Claim 10 (original): The method of claim 1, wherein finishing the slices comprises lapping the slices.

Claim 11 (original): The method of claim 1, wherein finishing the slices comprises polishing the slices.

Claim 12 (original): The method of claim 1, wherein finishing the slices comprises coating the slices with an anti-reflective material.

Claim 13 (original): The method of claim 1, wherein finishing the slices comprises forming a facet angle on at least one of the slices.

Claim 14 (currently amended): The method of claim 13, wherein forming a facet angle on at least one of the slices comprises placing the slice in a fixture that orients a face of each lens of the glass rod pieces in the slice at an angle.

Claim 15 (currently amended): The method of claim 14, further comprising lapping the oriented faces of the lenses glass rod pieces.

Claim 16 (currently amended): The method of claim 14, further comprising polishing the oriented faces of the lenses glass rod pieces.

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Claim 17 (canceled)

Claim 18 (currently amended): A method for producing lenses, comprising:

assembling a plurality of glass rods having a gradient refractive index in side-by-side configuration into a single unit;
cutting the single unit into multiple slices, each slice ~~having a plurality of individual lenses comprising an array of glass rod pieces~~;
finishing the slices to a desired thickness and surface finish; and
extracting the individual lenses glass rod pieces from the slices to produce a plurality of individual lenses.

Claim 19 (currently amended): A method for producing lenses, comprising:

assembling a plurality of glass rods having a desired length in side-by-side configuration into a single unit;
cutting the single unit into multiple slices, each slice ~~having a plurality of individual lenses comprising an array of glass rod pieces~~;
finishing the slices to a desired thickness and surface finish;
coating the slices with an anti-reflective material;
cleaning the slices; and
extracting the individual lenses the glass rod pieces from the slices to produce a plurality of individual lenses.